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Service Bulletin #2003-139

Jan. 28, 2003

Applicability: All Riblet Chairlifts.

Subject: Chair Clearance Issues.

Compliance: Preventive Maintenance.

<u>Note:</u> This Service Bulletin may or may not apply to chairlifts which incorporate modifications not authorized in writing by the Riblet Tramway Company, to chairlifts which have been relocated and/or re-engineered by others, or to chairlifts which are comprised of parts, some or all of which may have been originally sold by Riblet but which have been engineered and applied by others. These chairlifts are not considered to be Riblet chairlifts, and operators of such equipment should consult the Qualified Engineer responsible for the design.

Riblet chairlifts are, and have always been, designed to maintain adequate clearance between chairs and towers. Over time, modifications, maintenance procedures, usage, and repairs may compromise the clearance designed into the original lift. Compromised chair clearances may result in chairs becoming entangled with the chairguides, tower, tower machinery or other obstacles, resulting in equipment damage and/or serious injury or death to passengers or operating personnel.

Please review your Riblet chairlift(s) to be certain that none of the following clearance issues are present.

Tower Chairguides:

The tower chairguides on those Riblet chairlifts so equipped are designed to be approximately 30 inches below the level of the haul rope, and to be parallel to the rope. Chairguides must be bent at the center, if required, and adjusted to parallel the rope by adjusting the length of the chairguide supports on the uphill and downhill sides of the tower.

Chairlifts built prior to 1965 (and any pre-1965 towers which may have been transplanted to newer lifts) incorporate chairguide mounts which are adjustable in height. 1965-model and later chairlifts use a crossarm which mounts the chairguide at a fixed distance below the rope. When depression assemblies (CC, KK, RC, CRC, RK) are installed on these towers, a depression chairguide bracket (Riblet part no. PT-44) must be used.

All chairguide-equipped Riblet chairlifts were furnished with a profile drawing and an erection manual, one or both of which has a drawing and a notation

describing proper installation and adjustment of the tower chairguides. Please refer to those drawings, and, as a reminder, to the sketch below, which illustrates the proper installation and adjustment of chairguides on 1965 and later Riblet chairlifts using chairguides. Pre-1965 lifts are similar, but the adjustable chairguide mounts on these lifts obviate the need for the depression chairguide bracket.

If you do not have the drawings for your Riblet chairlift, we can supply copies at a reasonable cost. As each chairlift is engineered for a specific installation, we can furnish drawings only for Riblet chairlifts which are in their original configuration and location, or which have been modified and/or relocated with engineering services performed by Riblet Tramway Company. Please see the note in the box above.

We remind you to, as part of your regular maintenance program, inspect the chairguides on each tower of all Riblet lifts equipped with chairguides to be certain that they are properly installed and adjusted.



Sheave Bolts:

The sheave bolts originally supplied with Riblet sheaves were sized to prevent interference with chairs. A sheave bolt which protrudes too far from the sheave flange can contact, and sometimes dig into, the chair stem before the chairguide contacts the chair to stop inward swing. Sheave bolts should protrude only two or three threads beyond the nut.

We remind you to, as part of your regular maintenance program, inspect the sheaves on your Riblet lift to be certain that the correct bolts are installed. A chair stem contacting too-long sheave bolts can cause deropement, or even removal of the chair from the rope, with the potential for serious injury to passengers or operating personnel.

All Riblet sheave bodies have the same thickness at the bolt boss; the tire and sideplate determine the correct bolt length. Depending on the lift's year of manufacture, correct bolt type and length will be shown on the profile or in the

erection manual. A single 7/16" narrow rim ("SAE") flat washer is to be used under each nut. The following quick reference table covers all Riblet sheaves.

RIBLET Tire Finder Chart					
Nominal Tire Size (Rope Size)	Sideplate Ring		Tire	Ground	Bolt
	Туре	P/N	P/N	Tire P/N	Length*
1 1/8 (1 1/8")	B.O.	2328A	3023A	**	3"
	DEP.	2327A	3024		3 1/4"
1 1/4 (1 1/8" - 1 3/8")	В.О.	2439	3025A	**	3"
	DEP.	2441	3026		3 1/2"
1 1/2 (1 1/8" - 1 5/8")	В.О.	4704	4703	4703G	3 1/4"
	DEP.	4706A	4703		3 1/4"
*All bolts are 7/16"-14 NC Grade 5 Hex Head (Plated) **3023G and 3025G are no longer available. Convert to 4704 Sideplate & 4703G Tire.					

Tower Machinery Axle Extension:

We have seen tower machinery axles extended by various means in an attempt to improve sheave misalignment, typically resulting from shifting of the tower foundation due to unstable ground. Do not exceed the adjustment range built into standard Riblet tower machinery. In addition to potentially exceeding the design stress level of the shaft, extending the shaft may compromise the chairguide's ability to protect the tower machinery, allowing a swinging chair to contact the sheaves or rope catcher, with results comparable to those caused by too-long sheave bolts.

Miscellaneous Obstructions Attached to Towers:

Do not attach anything, such as conduits for control cables or lights, advertising signs, trail signs, or even required lift-related signs, to the sides of towers in such a manner as to reduce clearance from the chair to the tower or so as to offer a place to catch ski tips or poles. Do not place such conduits under the ladder so as to obstruct workmen's toe clearance.

Clearing and Terminal Areas:

ANSI B77.1-1999 sect. 4.1.1.3 Width of Clearing states that "...Trees and other vegetation shall be cleared a minimum of 5 feet (1.53 meters) from haul ropes and carriers under normal (nonsurge) operating conditions." Vegetation grows; please keep it maintained.

When installing skier control mazes, corrals, fences, etc. and when building, rebuilding, or modifying operator's houses and the like, please refer to ANSI B77.1-1999 sect. 4.1.1.4.2.2 Terminal Clearances. The clearance that we see infringed upon is: "External structures, posts, or obstructions, other than lift structural components, shall have at least 4 feet (1.22 meters) of clearance from either edge of a loaded open carrier passenger seat..." Although it's not explicitly stated, please make this minimum clearance apply to parked snowmobiles, groomers, shovels, toboggans, parked skis, and similar obstructions.

Thank You,

Riblet Tramway Co.